

#3
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OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/054,680

DATE: 02/12/2002
TIME: 12:08:02

Input Set : A:\LEX-0301-USA SEQLIST.txt
Output Set: N:\CRF3\02122002\J054680.raw

ENTERED

4 <110> APPLICANT: Friddle, Carl Johan
 5 Hilbun, Erin
 7 <120> TITLE OF INVENTION: Novel Human Ion Exchanger Proteins and Polynucleotides
 Encoding the
 8 Same
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 C--> 12 <141> CURRENT FILING DATE: 2002-01-22
 12 <150> PRIOR APPLICATION NUMBER: US 60/263,384
 13 <151> PRIOR FILING DATE: 2001-01-23
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 27 acaggcgaga acaatggatc ctgttcagggttacc tcatggact gcaaggaggg 180
 28 ccaatctgggttaccggggatcccttccgggttacc ggggacaaga ttgcccgggttacc cattgtctat 240
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 38 atgcacaaaa agtaccgcac agacaaacac cgagggatata tcatacgac agagggttacc 840
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Input Set : A:\LEX-0301-USA SEQLIST.txt
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 53 acagtcatcg tccccttag gacagtagaa gggacagcca agggtggcgg tgaggacttt 1740
 54 gaagacacat atggggagtt ggaattcaag aatgatgaaa ctgtaaaaac cataagggtt 1800
 55 aaaatagtag atgaggagga atacaaagg caagagaatt tcttcattgc ccttgggtaa 1860
 56 ccgaaatgga tggAACGTGG aatatcagat gtgacagaca ggaagctgac tatggaaaga 1920
 57 gaggaggcca agaggatgc agagatggg aagccagtat tgggtgaaca ccccaaacta 1980
 58 gaagtcatca ttgaagagtc ctatgagttc aagactacgg tggacaaact gatcaagaag 2040
 59 acaaaccctgg ccttgggtgt ggggaccat tcctggaggg accagttcat ggaggccatc 2100
 60 accgtcagtg cagcaggaga tgaggatgag gatgaatccg gggaggagag gctgccctcc 2160
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 82 20 25 30
 83 Gly Gly Ser Gly Asp Val Pro Ser Thr Gly Gln Asn Asn Glu Ser Cys
 84 35 40 45
 85 Ser Gly Ser Ser Asp Cys Lys Glu Gly Val Ile Leu Pro Ile Trp Tyr
 86 50 55 60
 87 Pro Glu Asn Pro Ser Leu Gly Asp Lys Ile Ala Arg Val Ile Val Tyr
 88 65 70 75 80
 89 Phe Val Ala Leu Ile Tyr Met Phe Leu Gly Val Ser Ile Ile Ala Asp
 90 85 90 95
 91 Arg Phe Met Ala Ser Ile Glu Val Ile Thr Ser Gln Glu Arg Glu Val
 92 100 105 110
 93 Thr Ile Lys Lys Pro Asn Gly Glu Thr Ser Thr Thr Ile Arg Val
 94 115 120 125
 95 Trp Asn Glu Thr Val Ser Asn Leu Thr Leu Met Ala Leu Gly Ser Ser
 96 130 135 140
 97 Ala Pro Glu Ile Leu Leu Ser Leu Ile Glu Val Cys Gly His Gly Phe
 98 145 150 155 160
 99 Ile Ala Gly Asp Leu Gly Pro Ser Thr Ile Val Gly Ser Ala Ala Phe
 100 165 170 175
 101 Asn Met Phe Ile Ile Gly Ile Cys Val Tyr Val Ile Pro Asp Gly
 102 180 185 190

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103 Glu Thr Arg Lys Ile Lys His Leu Arg Val Phe Phe Ile Thr Ala Ala
104 195 200 205
105 Trp Ser Ile Phe Ala Tyr Ile Trp Leu Tyr Met Ile Leu Ala Val Phe
106 210 215 220
107 Ser Pro Gly Val Val Gln Val Trp Glu Gly Leu Leu Thr Leu Phe Phe
108 225 230 235 240
109 Phe Pro Val Cys Val Leu Leu Ala Trp Val Ala Asp Lys Arg Leu Leu
110 245 250 255
111 Phe Tyr Lys Tyr Met His Lys Lys Tyr Arg Thr Asp Lys His Arg Gly
112 260 265 270
113 Ile Ile Ile Glu Thr Glu Gly Asp His Pro Lys Gly Ile Glu Met Asp
114 275 280 285
115 Gly Lys Met Met Asn Ser His Phe Leu Asp Gly Asn Leu Val Pro Leu
116 290 295 300
117 Glu Gly Lys Glu Val Asp Glu Ser Arg Arg Glu Met Ile Arg Ile Leu
118 305 310 315 320
119 Lys Asp Leu Lys Gln Lys His Pro Glu Lys Asp Leu Asp Gln Leu Val
120 325 330 335
121 Glu Met Ala Asn Tyr Tyr Ala Leu Ser His Gln Gln Lys Ser Arg Ala
122 340 345 350
123 Phe Tyr Arg Ile Gln Ala Thr Arg Met Met Thr Gly Ala Gly Asn Ile
124 355 360 365
125 Leu Lys Lys His Ala Ala Glu Gln Ala Lys Lys Ala Ser Ser Met Ser
126 370 375 380
127 Glu Val His Thr Asp Glu Pro Glu Asp Phe Ile Ser Lys Val Phe Phe
128 385 390 395 400
129 Asp Pro Cys Ser Tyr Gln Cys Leu Glu Asn Cys Gly Ala Val Leu Leu
130 405 410 415
131 Thr Val Val Arg Lys Gly Gly Asp Met Ser Lys Thr Met Tyr Val Asp
132 420 425 430
133 Tyr Lys Thr Glu Asp Gly Ser Ala Asn Ala Gly Ala Asp Tyr Glu Phe
134 435 440 445
135 Thr Glu Gly Thr Val Val Leu Lys Pro Gly Glu Thr Gln Lys Glu Phe
136 450 455 460
137 Ser Val Gly Ile Ile Asp Asp Asp Ile Phe Glu Glu Asp Glu His Phe
138 465 470 475 480
139 Phe Val Arg Leu Ser Asn Val Arg Ile Glu Glu Glu Gln Pro Glu Glu
140 485 490 495
141 Gly Met Pro Pro Ala Ile Phe Asn Ser Leu Pro Leu Pro Arg Ala Val
142 500 505 510
143 Leu Ala Ser Pro Cys Val Ala Thr Val Thr Ile Leu Asp Asp Asp His
144 515 520 525
145 Ala Gly Ile Phe Thr Phe Glu Cys Asp Thr Ile His Val Ser Glu Ser
146 530 535 540
147 Ile Gly Val Met Glu Val Lys Val Leu Arg Thr Ser Gly Ala Arg Gly
148 545 550 555 560
149 Thr Val Ile Val Pro Phe Arg Thr Val Glu Gly Thr Ala Lys Gly Gly
150 565 570 575
151 Gly Glu Asp Phe Glu Asp Thr Tyr Gly Glu Leu Glu Phe Lys Asn Asp

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Input Set : A:\LEX-0301-USA SEQLIST.txt
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154	595	600	605	
155	Glu Arg Gln Glu Asn Phe Phe Ile Ala Leu Gly Glu Pro Lys Trp Met			
156	610	615	620	
157	Glu Arg Gly Ile Ser Asp Val Thr Asp Arg Lys Leu Thr Met Glu Glu			
158	625	630	635	640
159	Glu Glu Ala Lys Arg Ile Ala Glu Met Gly Lys Pro Val Leu Gly Glu			
160	645	650	655	
161	His Pro Lys Leu Glu Val Ile Ile Glu Glu Ser Tyr Glu Phe Lys Thr			
162	660	665	670	
163	Thr Val Asp Lys Leu Ile Lys Lys Thr Asn Leu Ala Leu Val Val Gly			
164	675	680	685	
165	Thr His Ser Trp Arg Asp Gln Phe Met Glu Ala Ile Thr Val Ser Ala			
166	690	695	700	
167	Ala Gly Asp Glu Asp Glu Ser Gly Glu Glu Arg Leu Pro Ser			
168	705	710	715	720
169	Cys Phe Asp Tyr Val Met His Phe Leu Thr Val Phe Trp Lys Val Leu			
170	725	730	735	
171	Phe Ala Cys Val Pro Pro Thr Glu Tyr Cys His Gly Trp Ala Cys Phe			
172	740	745	750	
173	Ala Val Ser Ile Leu Ile Ile Gly Met Leu Thr Ala Ile Ile Gly Asp			
174	755	760	765	
175	Leu Ala Ser His Phe Gly Cys Thr Ile Gly Leu Lys Asp Ser Val Thr			
176	770	775	780	
177	Ala Val Val Phe Val Ala Phe Gly Thr Ser Val Pro Asp Thr Phe Ala			
178	785	790	795	800
179	Ser Lys Ala Ala Ala Leu Gln Asp Val Tyr Ala Asp Ala Ser Ile Gly			
180	805	810	815	
181	Asn Val Thr Gly Ser Asn Ala Val Asn Val Phe Leu Gly Ile Gly Leu			
182	820	825	830	
183	Ala Trp Ser Val Ala Ala Ile Tyr Trp Ala Leu Gln Gly Gln Glu Phe			
184	835	840	845	
185	His Val Ser Ala Gly Thr Leu Ala Phe Ser Val Thr Leu Phe Thr Ile			
186	850	855	860	
187	Phe Ala Phe Val Cys Ile Ser Val Leu Leu Tyr Arg Arg Arg Pro His			
188	865	870	875	880
189	Leu Gly Gly Glu Leu Gly Gly Pro Arg Gly Cys Lys Leu Ala Thr Thr			
190	885	890	895	
191	Trp Leu Phe Val Ser Leu Trp Leu Leu Tyr Ile Leu Phe Ala Thr Leu			
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 206 ccaatctgtt acccgagaa cccttccctt ggggacaaga ttgccagggt cattgtctat 240
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 247 35 40 45
 248 Ser Gly Ser Ser Asp Cys Lys Glu Gly Val Ile Leu Pro Ile Trp Tyr
 249 50 55 60
 250 Pro Glu Asn Pro Ser Leu Gly Asp Lys Ile Ala Arg Val Ile Val Tyr
 251 65 70 75 80
 252 Phe Val Ala Leu Ile Tyr Met Phe Leu Gly Val Ser Ile Ile Ala Asp
 253 85 90 95
 254 Arg Phe Met Ala Ser Ile Glu Val Ile Thr Ser Gln Glu Arg Glu Val

VERIFICATION SUMMARY

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Input Set : A:\LEX-0301-USA SEQLIST.txt
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L:12 M:270 C: Current Application Number differs, Replaced Current Application No
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date